



# CRYSTAL OSCILLATOR (SPXO)

## OUTPUT : LV-PECL

# SG-770 / SG-771 series

- Frequency range : 50 MHz to 230 MHz
- Supply voltage : 2.5 V Typ. / 3.3 V Typ.
- Output : Differential LV-PECL
- External dimensions: 7.0 × 5.0 × 1.6 mm
- Features : Fundamental mode oscillator with HFF-XTAL
- Function : Standby ( $\overline{ST}$ ) ...SG-770 series  
Output enable (OE) ...SG-771 series



Product Number (please contact us)

SG-770: X1G0023x1xxxx00

SG-771: X1G00282xxxx00



Actual size



## Specifications (characteristics)

Item	Symbol	Specifications			Conditions / Remarks
		SG-770SDD	SG-770SCD	SG-771PCD	
Output frequency range	$f_o$	50.000 MHz to 230.000 MHz		80.000 MHz to 175.000 MHz	Please contact us about available frequencies.
Supply voltage	$V_{cc}$	2.5 V $\pm 0.125$ V	3.3 V $\pm 0.165$ V	3.3 V $\pm 0.165$ V	
Storage temperature	$T_{stg}$	-55 °C to +125 °C			Storage as single product.
Operating temperature	$T_{use}$	As per below table			
Frequency tolerance	$f_{tol}$	$\pm 50 \times 10^{-6}$ Max.		As per below table	
Current consumption	$I_{cc}$	90 mA Max.		70 mA Max.	50 $\Omega$
Symmetry	SYM	45 % to 55 %		40 % to 60 %	at outputs crossing point
Output voltage	$V_{OH}$	$V_{cc} - 1.1$ V Min.			
	$V_{OL}$	$V_{cc} - 1.5$ V Max.			
Output load condition (ECL)	$L_{ECL}$	LV-PECL			
Input voltage	$V_{IH}$	70 % $V_{cc}$ Min.			$\overline{ST}$ terminal or OE terminal
	$V_{IL}$	30 % $V_{cc}$ Max.			
Rise time / Fall time	$t_r / t_f$	1 ns Max.			20 % to 80 % ( $V_{OH} - V_{OL}$ )
Start-up time	$t_{str}$	10 ms Max. *1			Time at minimum supply voltage to be 0 s
Frequency aging	$f_{aging}$	$\pm 5 \times 10^{-6}$ / year Max.		This is included in frequency tolerance specification.	+25 °C, $V_{cc} = 2.5$ V or 3.3 V, First year.

\*1 Rise time (0 V to 2.13 V or 3.15 V) of  $V_{cc} > 150 \mu s$ Product Name SG-770 S D D - 156.250000 - Q

(Standard form)

① ②③ ④ ⑤

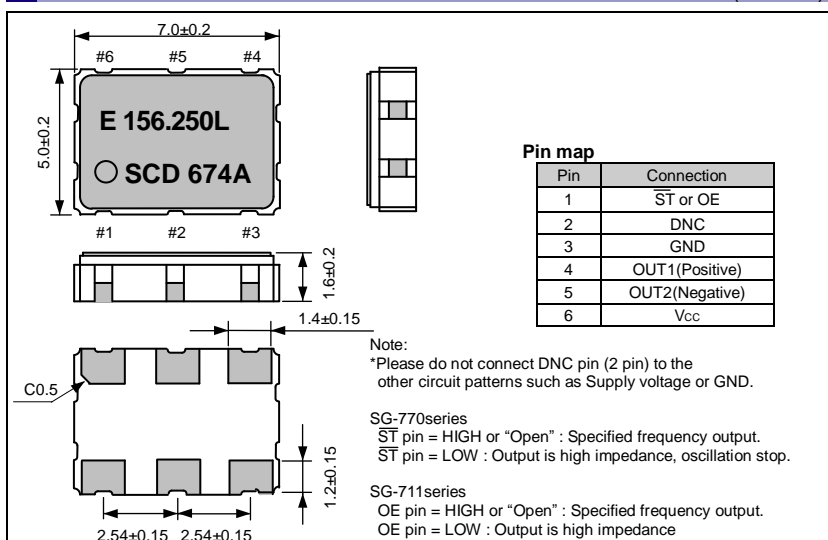
①Model ②Function (P: Output enable, S: Standby) ③Supply voltage

④Frequency(MHz) ⑤Frequency tolerance/ Operating temperature

③Supply voltage	⑤SG-770 series	Frequency tolerance	Operating temperature	⑤SG-771series	Frequency tolerance	Operating temperature	Frequency aging
D 2.5 V Typ.	L	$\pm 50 \times 10^{-6}$	-40 °C to +85 °C	A	$\pm 30 \times 10^{-6}$	-40 °C to +85 °C	10 years
C 3.3 V Typ.	B		-20 °C to +70 °C	B	$\pm 35 \times 10^{-6}$	-40 °C to +85 °C	20 years
	P		-10 °C to +70 °C	C	$\pm 20 \times 10^{-6}$	-10 °C to +70 °C	10 years
	Q		0 °C to +70 °C	D	$\pm 25 \times 10^{-6}$	-10 °C to +70 °C	20 years

## External dimensions

(Unit:mm)



## Footprint (Recommended)

(Unit:mm)

